

<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/553,841	PHAN ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Erick Rekstad	2621	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to RCE filed on August 22, 2006.
2. ☒ The allowed claim(s) is/are 1-23.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |  |  |
|--|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 5. <input type="checkbox"/> Notice of Informal Patent Application                      |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br>Paper No./Mail Date _____    | 7. <input type="checkbox"/> Examiner's Amendment/Comment                               |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance   |
|  | 9. <input type="checkbox"/> Other _____.   |

### **DETAILED ACTION**

This is a Notice of Allowance for application no. 09/553,841 in response to the RCE filed on August 22, 2006 wherein claims 1-23 are presented for examination.

#### ***Allowable Subject Matter***

Claims 1- 23 allowed.

The following is an examiner's statement of reasons for allowance:

The claims are allowable over the prior art of record since the cited reference taken individually or in combination fails to particularly disclose a system that visually monitors semiconductor processing comprising: a develop chamber, an image collector located at least partially within the develop chamber, the image collector collects energy reflected from inside the develop chamber and transmits a signal indicative of the interior of the chamber, and a controller that receives at least one sensor signal and selectively controls operations of the image collector in response to the received at least one sensor signal.

The closest prior art (Sanada US Patent 5,843,527) discloses a similar system of visually monitoring semiconductor processing as shown in Figure 10. However, Sanada fails to particularly teach or suggest "a controller that receives at least one sensor signal and selectively controls operation of the image collector in response to the received at least one sensor signal" as claimed. US Patent 5,742,395 to Biedermann et al. teaches the use of multiple cameras for testing a semiconductor wafer in a testing chamber (Col 13 Line 20-Col 14 Line 10, Col 16 Lines 15-18, Fig. 3). Though, Biedermann teaches a sensor (CAM1) to control the imager (CAM2) in a testing chamber it would not have

been obvious to one of ordinary skill in the art at the time of the invention to combine the teaching of Biedermann with the develop chamber of Sanada. Further, the sensor signal is viewed to be that of a sensing a variety of operating conditions as described in the specification on Page 6 Line 30-Page 7 Line 5, such as, for example, temperature, pressure, vibration, rotation speed or the chuck, or any other condition useful in controlling the operation of the develop unit. The develop unit and developer are further viewed to be the processing unit for only developing the wafer as described in the specification on Page 4 Lines 22-29.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patent 5,940,175 to Sun.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erick Rekstad whose telephone number is 571-272-7338. The examiner can normally be reached on 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on 571-272-7418. The fax phone

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Erick Rekstad  
Examiner  
AU 2621  
(571) 272-7338  
[erick.rekstad@uspto.gov](mailto:erick.rekstad@uspto.gov)



GIMS PHILIPPE  
PRIMARY EXAMINER